



trEATment

From research to the table

HEART DISEASE

Promising approaches to improved heart disease management and treatment through medically tailored nutrition

ISSUE 001

About

THE MAGAZINE

trEATment is a bi-annual publication that takes an in-depth look into the intersection of community-based “Food is Medicine” interventions and well respected, peer-reviewed research. The magazine aims to challenge readers to understand the largely untapped potential of nutrition as a form of healthcare treatment, and its role in secondary and tertiary prevention. The stories support and advocate for the positive impact Medically Tailored Nutrition has on those experiencing complex health conditions, and why it is a necessary intervention in the health care continuum.

EDITORIAL BOARD



Paul Hepfer
Editorial Director
CEO of Project Open Hand



Cathryn Couch
Founder and CEO of Ceres
Community Project



James Glauber, MD, MPH
Director of Research, Learning, and
Evaluation at Project Open Hand



Arielle Anderson
Director of Commercial
Strategy at Teladoc Health

MANAGING EDITORS

Barbara Camacho
Director of Development
Operations, Project Open Hand

Kim Kollwitz
Manager of Marketing and Com-
munications, Project Open Hand

CONTRIBUTING EDITOR

Amor Santiago, DPM, MPH
Department of Public Health and Recreation,
San Jose State University

CONNECT WITH US

Learn more about trEATment magazine and medically tailored nutrition at www.openhand.org/trEATment-magazine

Follow us on social media:

@projectopenhand @cerescommunityproject #trEATmentmagazine



From the Editorial Board

WELCOME

Welcome to the inaugural issue of trEATment magazine!

No longer just a promising practice, “Food is Medicine” is quickly taking its place in healthcare as a cost-effective way to prevent, manage, and treat serious, chronic, and complex illnesses.

This magazine aims to provide an in-depth look at the intersection between health and nutrition, sharing cutting-edge research and innovative practices provided by community-based organizations that produce and serve medically tailored meals, and spotlighting policy advances at the state and national levels to cover and reimburse for these services. Published twice annually by Project Open Hand with a range of contributors from the Food is Medicine Coalition, each edition of trEATment will focus on a singular health issue, such as heart disease or diabetes, and concentrate on the exciting advances showing the vital role that nutrition can play.

Selecting the first topic for our inaugural issue, heart disease, was not difficult. Since 1950, heart disease has been the unrelenting, leading cause of death in America. Today, life expectancy in America is at its lowest since 1996, with “young and middle-aged adults seeing the most rapid decline.” Risk factors for

cardiovascular disease include hypertension, elevated LDL, obesity, diabetes, smoking, and physical inactivity; most are influenced by diet. (“Cardiovascular Risk Factor Prevalence, Treatment, and Control in US Adults Aged 20 to 44 Years, 2009 to March 2020,” Journal of American Medical Association, March 5, 2023).

Despite heart disease being a leading cause of death in America, it is still relatively rare in medicine for diet and nutrition to be cited as serious first-line interventions to address risk factors. Even with great improvements in medications and other treatment regimes, Americans aren’t more easily winning the battle against heart disease because we continue to short-change one of the most effective treatments available: our food.

This issue of trEATment will review recent research exploring cardiovascular disease and the use of medically tailored meals including patients with CVD risk factors such as diabetes and high blood pressure. You’ll also learn how these promising practices are being used in communities throughout the country. We hope that this issue will encourage you to learn more about the role of medically tailored nutrition in treatment and prevention of heart disease and to support the continued integration of these services in our healthcare system.

FOOD IS MEDICINE





WHAT IS A MEDICALLY TAILORED MEAL?

According to the Food is Medicine coalition, medically tailored meals are delivered to individuals living with severe illness through a referral from a medical professional or healthcare plan. Meal plans are tailored to the medical needs of the recipient by a Registered Dietitian Nutritionist (RDN), and are designed to improve health outcomes, lower cost of care and increase patient satisfaction.



Table of **CONTENTS**

02

About

03

From the Board

07

Cover Story

15

Client Spotlight

22

Meal Recipe

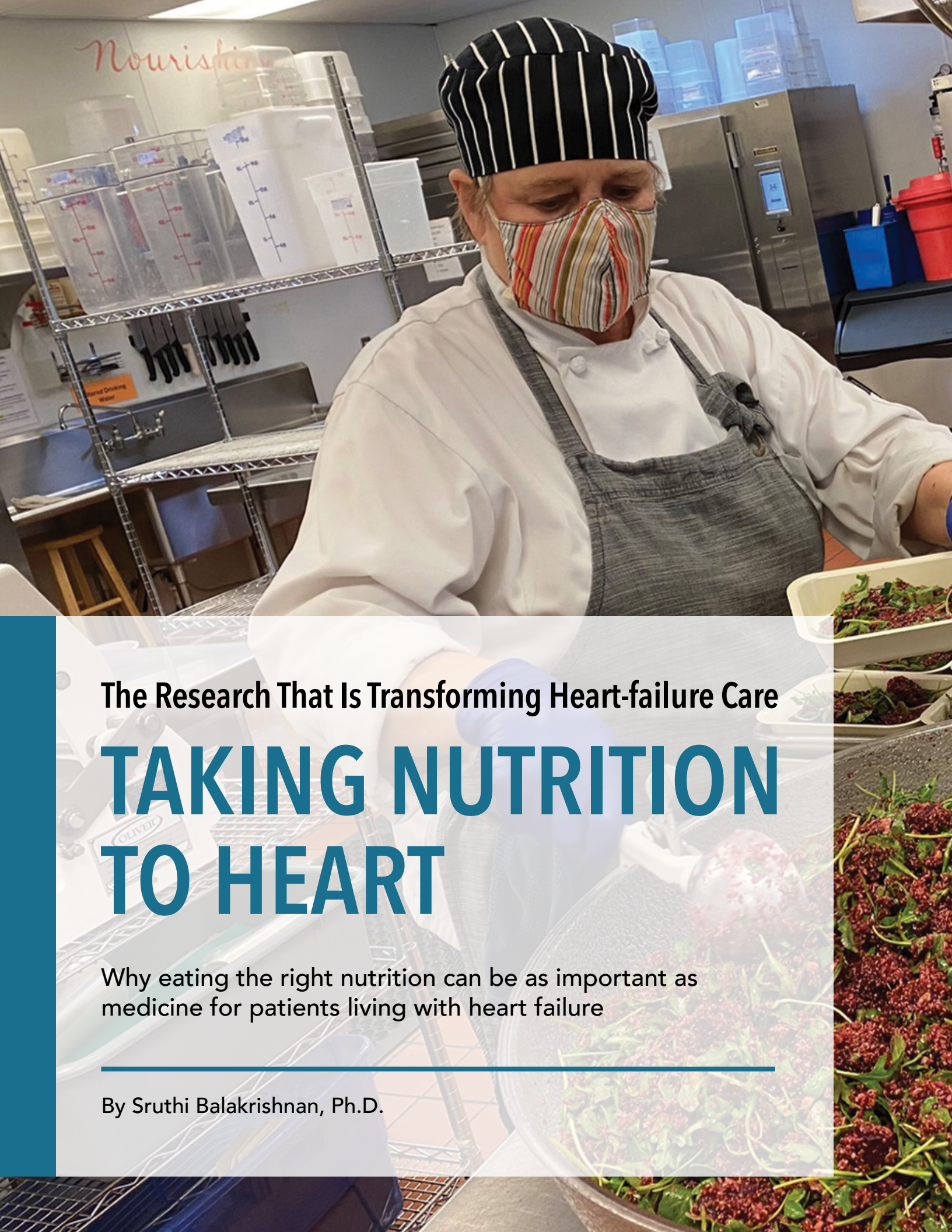
24

National FIMC

26

Emerging Trends

*Photo Credit:
Project Open Hand*



The Research That Is Transforming Heart-failure Care

TAKING NUTRITION TO HEART

Why eating the right nutrition can be as important as medicine for patients living with heart failure

By Sruthi Balakrishnan, Ph.D.



Sandi Melia is 68 years old, lives alone, and is plagued by a host of medical conditions—diabetes, high blood pressure, and high cholesterol to name a few. In a kitchen equipped with a microwave and a hot plate, it's not easy for her to make healthy, nutritious meals. Thankfully, the Ceres Community Project is there to help. A nonprofit that operates out of Sonoma County, they make medically tailored meals for people with chronic diseases. For Sandi, this means access to 6 months' worth of carefully curated meals that help keep her diabetes in check, control her weight, and worry a little less about her health.

WHAT ARE MEDICALLY TAILORED MEALS?

Medically tailored meals (MTMs) are, as the term suggests, custom-made to meet specific nutritional needs. Despite falling under the label of "food as medicine," MTMs are not meant to substitute for actual medication. However, studies show that these meals can help people stay healthy, visit the hospital less, take fewer medicines, and feel more food-secure. Originally conceived as a response to the AIDS epidemic, MTMs are now made to help people with a range of conditions like heart disease, diabetes, and kidney failure, each of which calls for different types and levels of nutrients. Doctors may tell patients to stick to certain diets when they're sick, but this may not be easy, or even affordable, for everyone.

MTMs give patients some respite and help them get back on their feet quickly. The meals are prepared under the guidance of registered dietitians, who go over a patient's medical conditions, refer to standardized guides from the Academy of Nutrition and Dietetics or the Food is Medicine Coalition, and figure out what food is best for the patient. This generally involves meals in which the amount of sodium for heart failure patients, levels of protein for kidney failure patients, or types of carbohydrate for diabetes patients are controlled by using the right ingredients. The meals often follow the Mediterranean diet (MedDiet) or Dietary Approaches to Stop Hypertension (DASH) diet, both of which prioritize whole grains, vegetables, lean protein, and low fat. These diets are known to help reduce the risk of cardiovascular disease, reduce blood pressure and cholesterol, and generally improve health. By making such meals, nonprofits like Project

Open Hand, Community Servings, and the Ceres Community Project provide vital services for people with chronic diseases and who may not be able to cook healthy meals for themselves. These organizations also often give nutritional counseling and social support, which can be especially important for older, isolated patients. Kim Madsen, Nutrition Care Manager at Ceres Community Project, not only designs and updates menus to match what people need, but also checks in on clients like Sandi. "The idea is that we touch base with our clients, and if they need a more in-depth...nutritional assessment and education or counseling, we can do that," says Madsen.

HOW DO WE KNOW THAT MTMS HELP?

Such services are crucial for people with heart failure, which is when the heart is not strong enough to pump blood throughout the body. "Many times [with] older age, lots of comorbid illnesses, poor mobility, cognitive impairments, logistical challenges... many patients with heart failure are malnourished, meaning not eating enough of the right types of food,"

Many patients with heart failure are malnourished, meaning not eating enough of the right types of food.

says Dr. Scott Hummel, a cardiologist at the University of Michigan and Section Chief of Cardiology at Veterans Affairs, Ann Arbor. In such cases, simply eating the right meals becomes as important as taking medicine. Dr. Hummel has been looking into MTMs for heart failure patients for a few years, and now wants to see how MTMs can help veterans with heart failure lead healthier lives. He has partnered with the VA to lead a study spanning nearly 40 VA centers and enrolling over 1,000 people, set to start in January 2024. The researchers will compare two groups of patients who have been hospitalized for heart failure. After being discharged from the hospital, one group will be given MTMs for 6 weeks alongside dietary counseling sessions. The MTMs will match the DASH diet and have less sodium. The other group will only receive dietary counseling



A Ceres cooking class learning how to make lemony lentil quinoa salad

sessions. Dr. Hummel's team will compare how long patients in each group can go without needing to be hospitalized again and if their heart failure symptoms get better. "There's...an idea of having a vulnerable population in a vulnerable time point. And maybe a targeted intervention during that vulnerable time point could be helpful in improving their outcomes and hopefully how they feel," says Dr. Hummel.

Dr. Hummel's new work comes on the heels of a study done by Kaiser Permanente's Northern California

Division of Research. Last year, they conducted a randomized controlled trial with over 1,500 people to check whether providing MTMs could help those who had been hospitalized with or for heart failure, kidney disease, or diabetes. The meals were provided by Project Open Hand and Ceres Community Project. One group of patients got one MTM a day, again following the DASH diet, for up to 10 weeks after being discharged from the hospital. Some of these patients also had access to virtual nutritional counseling sessions. A control group of similar

patients were not given MTMs, but were taken care of as usual. The researchers found that heart failure patients who got MTMs were less likely to be hospitalized again, but this was not true for kidney failure or diabetes patients. However, the MTMs may have helped all groups of patients live a bit longer. Dr. Alan S. Go, who led the study as the Regional Medical Director of the Clinical Trials Program at Kaiser Permanente Northern California, is excited by these results but emphasizes that it might not be enough. "We think for groups like

\$13.6

Billion

ESTIMATED ANNUAL SAVINGS TO
MEDICAID AND MEDICARE BY
PROVIDING MTMS

9.3

Percent

IMPACT OF DIABETES, CARDIOVASCULAR
DISEASES, AND OBESITY ON 2018 US GDP

10

Percent

AMERICAN HOUSEHOLDS THAT
ARE FOOD INSECURE

\$6

Million

FUNDING FROM CALIFORNIA FOR MULTI-
COUNTY MTM MEDICAID STUDY

\$4.6

Million

INVESTMENTS FROM THE ROCKEFELLER
FOUNDATION SUPPORTING FOOD IS MEDICINE

heart failure, maybe like the short term, that's beneficial. But for these other chronic lifelong diseases, it may take more of an outpatient intervention that is not as intense," he says.

To study more long-term interventions, researchers at the Tufts Medical Center are running a small trial with heart failure patients. They will first give patients three MTMs a day for 12 weeks, and then one protein shake a day to supplement regular meals for another 12 weeks. After each 12-week phase, the researchers will check if the patients' overall health and heart failure symptoms have gotten any better. By doing this, they hope to get a better

handle on what type of food support is effective, how well patients respond to the meals, and how feasible it is to give MTMs to patients.

The question of feasibility is an important one, especially if programs like Medicare or Medicaid are expected to cover MTMs. To test this on a large scale, the State of California recently completed a multi-county study with a budget of \$6 million. Convinced by the Food is Medicine Coalition and early studies, the Department of Health Care Services (DHCS) partnered with Project Open Hand to launch this pilot program in 2018. The DHCS used electronic health

records for people enrolled in Medi-Cal to find good candidates for the study and helped Project Open Hand enlist patients. Project Open Hand and its subcontractors including Ceres Community Project gave three MTMs a day for 12 weeks to about 1,400 people, who filled out questionnaires and were examined by doctors after completing the study. Researchers also checked if the patients were hospitalized more or less often after getting the MTMs. The results of this pilot study will be made public by the end of the year. When asked about initial impressions of the results, Joseph Billingsley, the Assistant Deputy Director for Health Care

Delivery Systems said that they seemed to largely match those of previous studies. They saw “improved dietary management of chronic conditions and relief of burdens associated with food insecurity and meal preparation,” with participants generally reporting positive experiences with the program, said Billingsley. Perhaps most importantly, these results have encouraged the DHCS to further strengthen the existing CalAIM Community Supports program, which is meant to improve the social aspects of health and includes MTMs for those enrolled in Medi-Cal.

Between all of these studies, though, the key question of how many MTMs should be given to patients and for how long remains unanswered. So far, studies have given meals to patients for anywhere from 2 weeks to several months. Some give one meal a day, while others give two or three meals a day. Researchers also do not know whether the people who receive the meals share their food with other household members, or if the meals are eaten only by the patient for whom they are prescribed. “I would really like to see some more research into feeding at a family level, because I think that’s really important,” says Jessica Burch, the Senior Research Project Manager at Community Servings, a nonprofit based out of Boston, Massachusetts.

CAN MTMS SUPPORT PEOPLE IN OTHER WAYS?

Tracking whether patients share MTMs can help researchers figure out how meals should be portioned out and scaled, and also get a read on household food status. A 2021 report by the US Department of Agriculture showed that nearly 10% of American households were food insecure, which is when people do not have continuous and reliable access to food. This is usually brought on by a combination of scant public safety nets, the limited availability of affordable healthy foods, rising food costs, and systemic racism. The percentage of Black and Hispanic households experiencing food insecurity in 2021 was nearly double that of white households. It was also worse for households with incomes less than 185% of the poverty threshold. This basically means that a family with two adults and two children needs to earn nearly \$50,000 for the year to avoid food insecurity. “Congressional subsidies for unhealthy food...high fructose corn syrup, refined grains, all of these are actually subsidized. If you

drop the price of unhealthy foods, the poor people will buy them more. So you’re having a disproportionate impact on the poor,” says Dr. Kim A. Williams, Chair of the University of Louisville Department of Medicine and former President of the American College of Cardiology. A recent article projected, a rise in prevalence among all non-white races and ethnicities in diabetes, obesity, high blood pressure, and heart disease by the year 2060.

For people from these high-risk populations, getting an MTM can be life-saving in more ways than one. In 2017, researchers at UCSF partnered with Project Open Hand to provide tailored meals to people with HIV and diabetes for 6 months. By the end of study, the number of people who initially had very low food security dropped by nearly half. Another study, published in 2018, showed that people with diabetes who got MTMs for 12 weeks reported less food insecurity and better diet quality. The same group, which is a partnership between the University of North Carolina, Chapel Hill and Community Servings, is conducting two National Institutes of Health-funded studies by exclusively recruiting people with either diabetes or HIV, and facing food insecurity. “I feel like there’s a lot of research out there that addresses one of those, but not both,” says Colleen Forrest, a Senior Research Dietitian who works with Burch on the NIH-funded studies at Community Servings.

As an added bonus, MTMs may reduce healthcare expenses, possibly serving as an incentive to insurance providers. Following a flurry of studies showing that MTMs reduced healthcare spending and an uptick in policy interests, Kurt Hager, an instructor of Population and Quantitative Health Sciences at the University of Massachusetts Medical School, led a study last year to assess the impacts of MTMs at the national level. They estimated that providing MTMs to everyone in Medicaid and Medicare with diet-sensitive conditions and activity limitations, even if given for up to 8 months, could save health insurance providers \$13.6 billion every year. Hager is now part of a group diving deeper into MTMs and how they affect people’s health and the linked costs. “We’re also doing interviews with patients and physicians to understand and learn from their perspectives on the program. We’ll be doing some phone interviews that do explore how frequently meals are being shared within a household. And we’ll also look at impacts after the program ends,” says

Hager. However, he cautions that while these initiatives can be cost-saving in certain circumstances, they may not do so for all programs and populations.

Dr. Dariush Mozaffarian, the Jean Mayer Professor of Nutrition at the Friedman School of Nutrition Science and Policy at Tufts University, concurs. “We’re always paying for health, we’re not saving money,”

“We’re always paying for health, we’re not saving money.”

he says. He also stresses that MTMs should be viewed as an effective treatment for patients with specific conditions and not as a preventative measure. And because of this, they should be tested and standardized just like any other drug or medical device. Dr. Mozaffarian has led

several studies on the impact and effectiveness of MTMs, but maintains that there is not yet enough proof from randomized controlled trials to initiate policy-level changes. Dr. Go from Kaiser Permanente adds, “I think that insurers and the government, we really should demand randomized trials that are powered to study clinically important outcomes, not just things like patient satisfaction, or patient acceptance.”

WHAT’S NEXT FOR MTMS?

The ongoing studies on MTMs reflect an increased national awareness of how nutrition and diet are linked to chronic diseases. The costs of diabetes, cardiovascular diseases, and obesity-related conditions accounted for nearly 9.3% of the US gross domestic product in 2018. Last year, for the

first time in over 50 years, the White House held a Conference on Food, Nutrition, and Health. Of the five pillars outlined, two directly relate to MTMs—one on integrating nutrition and health and the other on enhancing nutrition and food security research. The conference has been hailed by physicians, researchers, and nonprofits alike for filling a critical gap in nutrition efforts.

Many stakeholders regard the current movement with hope and as a tipping point. Evidence showing that MTMs are effective and important is building every day. The Rockefeller Foundation recently invested \$4.6 million in research supporting food is medicine initiatives. Tufts University and the Tufts Medical Center have sponsored close to a dozen studies on how MTMs can be used to treat people with lung cancer, heart failure, and diabetes, among other conditions. “We’re really looking forward to completing and publishing these findings, because randomized controlled trials will have the strongest evidence to convince payers and policymakers and providers,” says Dr. Mozaffarian. These studies are backed by unwavering advocacy efforts by the Food is Medicine Coalition, who were instrumental in championing the DHCS pilot program.

There is also a push from physicians, who lament the lack of nutrition education in medical schools, to catch up. Dr. Jaclyn Albin, an Associate Professor in the Departments of Internal Medicine and Pediatrics at University of Texas



Dr. Alan S. Go, Regional Medical Director of the Clinical Trials Program at Kaiser Permanente in California

Southwestern Medical Center, is a vocal advocate of the food is medicine movement. She launched the university's Culinary Medicine Program and now teaches hands-on courses to medical students and residents. The lack of transparency on medical education spending and autonomy of medical schools means that the responsibility to make change usually falls on passionate advocates who must prove that any new training is medically valuable. "We also have to acknowledge that education evolves very slowly, and any new scientific discovery tends to take 15 to 20 years before it changes practice," says Dr. Albin.

Alberto Cortés, CEO of the MTM-providing nonprofit Mama's Kitchen, has already been at the game for over 20 years. Cortés is deeply familiar with the ins and outs of MTMs and importantly, getting the money to keep making and supplying meals to those in need. It may be relatively easy to get funding to feed hungry people, but it's a lot trickier when you have to explain that you're making meals tailored to different nutritional profiles. A deep understanding of the complexity of the community one serves and how MTMs impact these

Sandi Melia holding chicken tortilla soup outside of Ceres' main office



people is critical. Looking ahead, he sees MTMs helping a fast-growing aging population who will have their own health challenges. "We need to stay ahead of the curve, and be constantly pivoting and preparing and calibrating our capacity to be ready to respond to that increased need in our communities, rather than caught in having to be reactionary, and potentially less effective," says Cortés.

Sandi, for one, is grateful not just for the meals she gets but also for the kindness of the volunteers, who often drop in handmade bookmarks or greeting cards along with her meals. "I get very sentimental about stuff like that because I live alone...I tell them every week to tell the staff 'thank you so much' because I really do appreciate it more than I could say," she says.

“

We're really looking forward to completing and publishing these findings, because randomized controlled trials will have the strongest evidence to convince payers and policymakers and providers.

— Dr. Mozaffarian

”



Client SPOTLIGHT

By Christine Shaff, Project Open Hand,
in collaboration with Sruthi Balakrishnan, Ph.D.

Photo Credit:



Sandi Melia was referred to Ceres Community Project (Ceres) from her local health clinic where she was being treated for multiple long-standing health issues. Ceres, a Sonoma-based nonprofit, prepares thousands of medically tailored meals (MTMs) weekly to meet the nutritional needs of people living with chronic and acute illnesses like diabetes, hypertension, coronary artery disease, and congestive heart failure.

Often, a physician or a nurse practitioner from a local clinic refers people to Ceres, but in Sandi's case, a dietitian from her clinic referred her. Sandi knew about Ceres, having been a client once before following a knee replacement surgery.

"A [Registered Dietitian Nutritionist] and a social worker thought that I should reapply for Ceres because of [my] type 2 diabetes, and all these other conditions that I needed a little nutritional support [for]," Sandi said. Her weight, diabetes, and blood pressure were all above their healthy ranges.

Sandi's referral to Ceres was an example of "the stars being aligned" according to Kim Madsen, Nutrition Care Manager and a Registered Dietitian Nutritionist at Ceres, because Sandi was in the right place at the right time. Sandi had been dealing with multiple health issues with direct connections to food and nutrition, including diabetes and past eating disorders. Madsen, who works with Sandi in her capacity as Nutrition Care Manager, noted that Sandi's home on the second floor, combined with her limited mobility meant that grocery shopping was a challenge.

As Sandi explained, "I live up 17 stairs. So carrying groceries, and just the whole going to get groceries and trying to carry them up, it's all difficult for me."

The Ceres' client care team enrolled Sandi, signing her up for their weekly delivery of medically tailored meals. Madsen then contacted Sandi to schedule a nutrition counseling visit.

With its sliding payment scale for clients based on income, Ceres' MTMs are free for about 85% of clients with the remaining paying a small fee. For Sandi, this means that her meals through Ceres are free, which allows her to focus on her health and nutrition instead of the cost of the meals.

"It's much healthier than I would normally eat," Sandi said. "And it's very convenient for me [which helps] because I'm disabled."

However, the change in the type of foods she was eating was not unwelcome. Sandi notes that prior to receiving the medically tailored meals, she wanted to change her eating habits: "I would look stuff up on the internet, but it wasn't specific enough for me, and so that's why I asked to speak to a nutritionist at the health center. [...] And he gave me a lot of flyers and written information on what foods to eat [...] so, in general,

I started buying healthier things, and not even bringing things into the house[...]to make it a temptation.”

Medically tailored meals, including plenty of vegetables and whole grains that are high in fiber, provide a counter to diets that are high in processed foods, energy-dense, and can lead to the overconsumption of calories.

Medically tailored meals provide a counter to diets that are high in processed foods.

For some clients, this means an initial adjustment period to the meals, which are designed to provide sufficient calories to meet a client’s nutritional needs.

When she started receiving her MTMs, Sandi’s initial feedback was that they left her hungry still – the portions were smaller than she was used to. The meals also included food she wasn’t used to eating, like broccoli.

“The portions are not really big, but I don’t feel hungry. You know, it’s, it’s because it’s all measured out and everything. When I’m done, I never feel like oh, well, I need more to eat,” Sandi said.

She’s become a fan of the food, calling out a couple of her favorite meals: “Their frittatas are really good. And then there’s what they call a meatball soup with rice noodles - I wish the container was bigger, it’s really very good. There’s [sic] certain things that are just so good, like, it’s just so good and so healthy, I eat much more like salads and fresh food and things that are not processed.”

After several weeks of receiving MTMs, Madsen observed that Sandi projected more confidence and is doing more to take care of herself, like going to the dentist. She’s lost weight, and her diabetes and blood pressure are both under better control. Sandi reiterated this to Madsen, telling her that she feels more in control of her health.

Today, Sandi’s health markers are moving in ways that show improved health, for which Sandi credits the MTM’s: “I think the Ceres food really did push my health forward in a really good way.”

“I told Kim I went down 10 blood sugar points in the first week or week and a half, and three pounds. [...] So, I mean, that’s significant to me. Yeah, very significant,” Sandi said.

The medically tailored meals from Ceres provided Sandi with a direct experience of the difference her eating habits can make for her health. The visible progress she’s made is essential to helping her stay on track with nutrition after she stops receiving the medically tailored meals.

Madsen sees the start of positive changes in Sandi’s overall eating habits and continues to be a resource for her.

Sandi is gregarious and extroverted, Madsen says. When she checks in on Sandi for health updates and to share resources, their interactions are by phone and email. It’s high-touch services like these, allowing Sandi multiple opportunities to connect with Ceres staff, that are a crucial component to Sandi’s overall health improvements, Madsen says.

Sandi credits everyone at Ceres for helping her: “Sometimes the volunteers, they put little things in with the food, like on Wednesday when they delivered, there was a handmade little bookmark and a little note from one of the teenagers. And that might not sound like all that much. But I get very sentimental about stuff like that because I live alone. And I’m way out in the country where I don’t have a lot of visitors. Kim [Madsen] has called me a couple times just to see how I’m doing. So it’s the personal care that I think is really...I just can’t even say enough good about them. It’s like really being catered to - I feel really special and very grateful for them. And because it’s made my health a lot better.”

Sandi is a compelling example of how being cared for in your community while being nourished creates a positive impact on someone’s physical, mental, and emotional health. MTMs in combination with nutrition counseling and education from a Registered Dietitian Nutritionist, along with contact with volunteer “delivery angels” and a caring client care team positively impact a client’s mental and physical health especially when challenged with managing complicated or multiple medical concerns.



Today, Sandi's health markers are moving in ways that show improved health, for which Sandi credits the MTMs.

Photo Credit: Ceres Community Project



A produce box prepared to be delivered to Project Open Hand clients

Photo Credit: Project Open Hand



Rice is measured and scooped into medically tailored meals being prepared at Project Open Hand

Photo Credit: Project Open Hand



Meals are assembled at Ceres Community Project

Photo Credit: Ceres Community Project





Volunteers prepare meals at Ceres Community Project

Photo Credit: Ceres Community Project



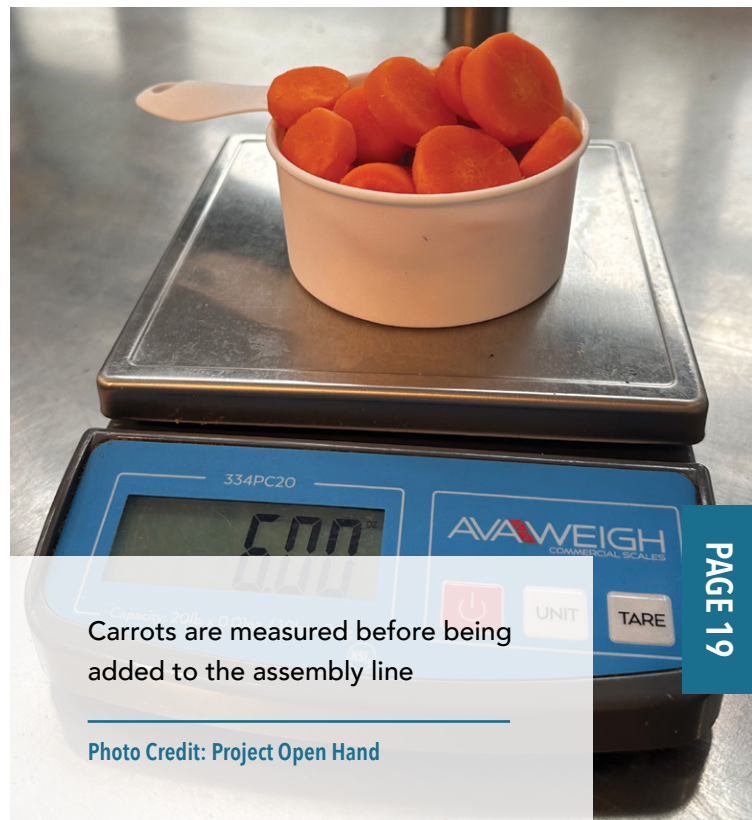
Project Open Hand staff inspecting a meal

Photo Credit: Project Open Hand



Carrots are measured before being added to the assembly line

Photo Credit: Project Open Hand



Heart Healthy

MEAL PLANNING

By Kimberly Kollwitz, Project Open Hand

A well-balanced diet plays a vital role in maintaining the health and well-being of people who are living with heart disease. For this reason, organizations like Project Open Hand and other members of the Food Is Medicine Coalition (FIMC) produce thousands of medically tailored meals (MTMs) daily to help people living with heart disease, diabetes, and HIV/AIDS with the nutrients they need to treat and manage their health and other diseases.

CHEFS AND DIETITIANS WORK TOGETHER TO BUILD MTMS

For medically tailored meals, building a heart-healthy plate starts with evidence-based nutrition standards. Working in close collaboration with chefs, dietitians use nutrition standards developed by FIMC's Clinical Committee, comprised of registered dietitian nutritionists from across the country, to build out each organization's menu plan. Each meal adheres to specific micronutrients and caloric needs based on a person's health condition. The chef provides feedback and suggestions for the meals based on taste and produce availability, and the dietitian will rework the meal plan accordingly.

For example, if the FIMC guidelines say that a client's diet needs to focus on non-starchy vegetables and hit a certain fiber content, the dietitian and chef will work together to match available produce with the best legume that fits those needs. Similarly, if the organization is preparing meals for someone with heart disease, it's crucial to limit the sodium. In this case, a chef and a dietitian might decide to substitute salt with herbs to enhance the flavor of the dish.

After the menu plan is developed, the kitchen staff gets to work preparing the meals – weighing ingredients, checking portion sizes, and giving the complete meal a final check before packaging it for delivery.

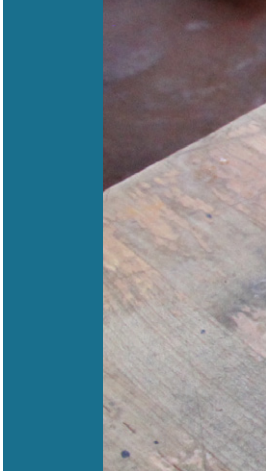
When these two professionals – a dietitian and a chef – work together, it creates MTMs that are not only delicious but balanced and nutrient-rich.

TRANSLATING NUTRITION FOR CHRONIC ILLNESSES TO CLIENTS

At Project Open Hand, like all FIMC agencies, clients are referred through medical providers. After referral, registered dietitian nutritionists, using information provided by the client's doctors, match the client to the best diet based on their health needs.

Clients also receive access to a range of nutrition education services, from materials and classes to one-on-one consults with registered dietitian nutritionists. They can get answers to their questions, counseling that addresses their unique challenges, and education about how to prepare healthy meals at home.

The primary goal of these nutrition services is to teach clients how to make choices that are best for their health, including how to shop on a budget and how to prepare simple meals at home with the proper nutritional balance. Providing them with the tools, resources, and knowledge to make healthy choices means better, more consistent long-term management of their illnesses.





BUILDING A HEART-HEALTHY PLATE

For a person living with heart disease, it’s important to craft meals that focus on a few critical components: limiting sodium and saturated fats, increasing dietary fiber and specific micronutrients, and emphasizing whole foods like lean proteins, legumes, whole grains, and vegetables.

THE FIMC NUTRITION STANDARDS FOR A “HEART HEALTHY” PLATE INCLUDE:

NUTRIENT	MAX. % DAILY CALORIES	THIS MAY LOOK LIKE...
PROTEIN	18% (at least)	<ul style="list-style-type: none"> Lean meats like poultry and fish Plant-based proteins
CARBS	55%	<ul style="list-style-type: none"> An emphasis on whole grains and vegetables that are rich in fiber
TOTAL FAT	25 to 35%	<ul style="list-style-type: none"> Olive oil, avocados, nuts and seeds
SATURATED FAT	6 to 7%	<ul style="list-style-type: none"> Focusing on lean cuts of meat to reduce saturated fatty acids Plant-based proteins like tofu, tempeh, and legumes in recipes to reduce total saturated fat
SODIUM <i>2300mg or less (1 tsp)</i>	N/A	<ul style="list-style-type: none"> Avoiding processed, store-bought meals that are high in sodium (e.g. canned soups, frozen TV dinners)



Recipe

MUSHROOM AND HERB SAUCE

Fat4.9 gm
% Cal/Fat.....52.9 %
Chol 0 mg

Sodium.....144 mg
Fiber/Dtry2.2 gm
Calcium34 mg

INGREDIENTS

- **2 tbsp** Extra virgin olive oil
- **1/4 cup** Medium yellow onions, chopped
- **3 cloves** Garlic, peeled and minced
- **4 oz can** Tomato paste without added sodium
- **8 oz can** Diced tomatoes
- **1/4 cup** Vegetable broth
- **6 oz** Mushrooms, sliced
- **1-1/2 tsp** Dried basil
- **1/2 tsp** Dried oregano
- **1/8 cup** Shredded carrots
- **2 tbsp** Fresh parsley
- **1/2 tsp** Kosher salt
- **2 tbsp** Fresh basil

INSTRUCTIONS

1. Heat oil over medium high heat. Add onions and saute until soft and translucent, about 10 minutes. Add garlic and saute until fragrant, about 2 minutes.
2. Add tomato paste and let it sizzle in the pan until it turns brick red, about 5 minutes. Add diced tomatoes, including liquid to deglaze the pan.
3. Add vegetable broth, mushrooms and herbs. Stir to combine. Bring to a boil. Then lower heat to a simmer. Allow sauce to simmer for 7-10 minutes.
4. Add carrots and parsley. Season with salt and peper to taste.
5. Optional: Add finely cut basil as garnish

NOTE: Drain and rinse canned mushrooms or vegetables, which may be high in sodium, in cold water to wash off excess sodium.

National Policy Perspectives

FOOD IS MEDICINE

By Katie Garfield, JD, Clinical Instructor and Director, Whole Person Care Center for Health Law and Policy Innovation, Harvard Law School

In September 2022, the Biden-Harris Administration held the second-ever White House Conference on Hunger, Nutrition, and Health, where it released a new National Strategy report. The concept that “food is medicine” is woven throughout the strategy with one of the five pillars focused specifically on integrating nutrition into health. Advancing medically tailored meals is identified as a key strategy. As a result, the White House Conference marked a watershed moment for the field of FIM, kicking off a year of public and private action to expand access to interventions such as medically tailored meals (MTM), medically tailored groceries (MTG), and produce prescriptions (PRx).

As we approach the one-year anniversary of the Conference, it is important to reflect both on this progress and on action needed in the year ahead.

IMPROVING SCREENING

In the National Strategy, the Biden-Harris Administration committed to establishing universal screening for food insecurity in federal health care programs. Such screening—already in place in the Veterans Health Administration—can be a critical first step in connecting patients to nutrition supports. Over the last year, we have seen concrete progress towards this goal, including federal action to build screening into quality frameworks for hospitals, clinicians, and others in the Medicare program and regulations creating new billing codes to better compensate health care providers for time spent on screening and navigation to connect patients in need to responsive services.

IMPROVING RESEARCH

The National Strategy also included commitments to expand nutrition research, a necessary step in establishing effective FIM policy. In the wake of the Conference, we have seen the publication of new studies underlining the potential impact of MTMs and PRx; collaboration across federal agencies to identify FIM research priorities; a proposal to create a new FIM Centers of Excellence program; and large-scale philanthropic commitments to expanding the research base.

IMPROVING CAPACITY

Finally, and most critically, the National Strategy stated a commitment to expanding access to FIM through federal health insurance programs. Currently these programs do not include coverage for FIM services as part of standard benefits, but regulatory flexibilities and waivers can allow payment in some cases. Over the last year, policymakers have worked to clarify and expand upon these opportunities. CMS has issued new frameworks, guidance, and proposed regulations regarding Medicaid payment for FIM interventions through the use of waivers and managed care flexibilities; multiple states have seized these opportunities (with 7 now using approved Medicaid waivers to pay for FIM); and federal legislators have introduced legislation that would establish a 4-year pilot to test coverage of MTMs in Medicare Part A.

As we look to the year ahead, it will be critical to build upon these initial actions. While progress over the last 12 months has been unprecedented, significant challenges



remain. Access to FIM interventions is still limited in many geographic areas of the country, questions persist about how to best integrate FIM programs into health care infrastructure (e.g., coding and privacy frameworks), and payment for FIM services by health care providers and payers remains the exception—not the rule. In addition, as demand grows for FIM services, it will be critical that solutions seek to include and adequately compensate locally based organizations who are embedded in the communities they serve and able to provide the kind

of service that Sandi received from Ceres Community Project.

Achieving the goal – widespread equitable access so that everyone like Sandi who needs medically tailored meals and nutrition education has them -- will take continued research, advocacy, and capacity building. Through these actions, we can build on the momentum of the White House Conference and make continued progress in the year ahead.



TO LEARN MORE ABOUT PEER-REVIEWED RESEARCH AND PARTICIPATING FOOD IS MEDICINE PROVIDERS, VISIT THE CALIFORNIA FOOD IS MEDICINE WEBSITE AT WWW.CALFIMC.ORG

Emerging Trends

EXERCISE AND NUTRITION PLAY A ROLE IN MENTAL HEALTH

By James Glauber, MD, MPH, and Paul Hepfer, Project Open Hand

What are the components of a healthy lifestyle? The American College of Lifestyle Medicine identifies the six pillars of healthy lifestyle as nutrition, physical activity, stress management, restorative sleep, social connection, and avoiding risky substances. While many people struggle to make the healthy choices that can help prevent illness, those living with mental illness face much greater challenges.

Research shows that individuals struggling with serious mental illness will have a shorter lifespan of as much as 20-25 years. A 2020 study in *PLOS Medicine* concluded that 24% (men) and 28% (women) of this life expectancy gap could be eliminated by implementing existing interventions targeting lifestyle risk factors.

A holistic lifestyle approach to treating mental disorders assesses which pillars are most rickety, and intervenes to strengthen those pillars. For some, it may be starting an exercise program. For others, it may be a better diet. Research conducted in Californians illustrates this. The 2005-2015 California Health Interview Survey (published in the *International Journal of Food Sciences and Nutrition* in 2019), with over 245,000 adult respondents, examined the relationship between diet and psychological distress. They found significant associations between unhealthy diet and moderate and serious levels of psychological distress. Lower consumption of vegetables and fruit and higher consumption of fast foods, French fries, soda, and daily

sugar intake were all independently associated with both levels of psychological distress.

Given the existing research on the link between the gut microbiome and inflammation on a wide range of health conditions including brain health, we encourage providers and payors to explore the potential benefits of nutrition interventions, such as produce prescriptions and medically tailored meals and groceries, to treat serious mental health conditions.

As an example of how lifestyle interventions can support those living with mental health challenges, a March 2023 meta-analysis of research studies comparing exercise to 'medical' management of depression and anxiety was published in the *British Journal of Sports Medicine*. It concluded that various forms of exercise work better than counseling or medications for a range of conditions and populations. This study received widespread media attention.

A meta-analysis is not new research. Rather, it is a systematic compilation of existing studies that rigorously compare exercise to medication and counseling as a treatment for depression and anxiety. In this case, over a thousand studies involving over 128,000 participants were reviewed. We have known for some time that exercise improves depression. This meta-analysis provides an exclamation point and challenges us to rethink our treatment of depression and anxiety. It raises the possibility that exercise could be used 'first-line' in treating these mood disorders.

This is particularly good news considering shortages of accessible mental health professionals, especially those who accept publicly-subsidized insurance, and the cost and side effects of medications. Anti-depressant medication sometimes take several weeks to start working, if it works at all. The mood-elevating benefits of exercise, as many already experience, are immediate and robust.

Exercise is a component of a healthy lifestyle. We should not think of exercise as we sometimes mechanistically think of nutritional supplements or macronutrients: take more of this, less of that, and your health will improve. Just as a healthy diet is best conceived as a holistic balance of diverse, nutritious primarily plant-based whole foods, exercise is a critical “macronutrient”

for a healthy lifestyle. Rather than concluding that we need to get depressed or anxious people to exercise to heal, we should approach treatment of anyone with serious mental disorders from a lifestyle perspective in addition to the vital role of medication.

A comprehensive lifestyle assessment and practical support for lifestyle modification should be core components of treating all individuals living with a mental health condition. Which lifestyle pillars to support, and when, demands a person-centered, customized approach from a therapist/counselor and/or lifestyle coach committed to the principles of lifestyle medicine.

Yet everyone eats. What we eat matters for our health, both as disease prevention and as treatment – and there’s already significant research on nutrition and mental health. For example, research has shown that adopting a Mediterranean diet (rich in whole grains, fruits, vegetables, olive oil, fish, beans, and nuts) improves depression. In the short term, what we

eat impacts how we feel, physically and emotionally. An August 2023 study drawing from the National Health and Nutrition Examination Survey reported that higher adherence to the Mediterranean diet was significantly associated with a lower level of depressive symptoms measured by the PHQ-9 score.

Improving diet is hard for individuals with chronic illness, but especially for individuals impacted by mental illness. For those living with chronic illnesses such as diabetes, kidney failure, and congestive heart disease, eating a better quality diet is a vital component of treatment recovery. While a growing body of research has demonstrated that Medically Tailored Meals can help improve outcomes and lower costs of care for these patients, we have yet to explore the cost-benefit of

MTMs for those living with serious mental illness.

We do know that for many patients, receiving MTMs jump-starts their nutrition transformation journey.

Agencies providing medically tailored meals through the

California Food is Medicine Coalition, such as Project Open Hand and Ceres Community Project, largely serve clients with serious physical health conditions, though some will also have diagnosed and undiagnosed mental health conditions. We are not yet explicitly serving individuals experiencing serious mental illness despite inclusion of this population in California’s Medi-Cal Medically Tailored Meals Community Support benefit. This lack of parity in healthcare access is too familiar and a missed opportunity. The California Food Is Medicine Coalition and Project Open Hand in the Bay Area are eager to join hands with our colleagues serving those with mental illness, in buttressing the vital nutrition lifestyle pillar critical to treatment and recovery.

A comprehensive lifestyle assessment and practical support for lifestyle modification should be core components of treating all individuals living with a mental health condition.

NO PARKING
2 A.M. TO 6 A.M.
TUES. THURS. SAT.
STREET CLEANING

WARN
Security
Cameras

FOOD = LOVE

openhands.org

"Before Project Open Hand's meals, I could barely walk. Now, I can dance." - MARIO, MISSION DISTRICT

FOOD = LOVE

#MealsWithLove

openhands.org
donate | volunteer

Anthem is proud to support trEATment Magazine

Making a difference together

We are working together to give back to communities in California.

chooseanthem.com/ca

Anthem 

1065169CACENABC 01/24

